

K E N M O R E

YA 77500
I N S T R U C T I O N S



A U T O M A T I C Z I G - Z A G S E W I N G M A C H I N E

Sears, Roebuck and Co.

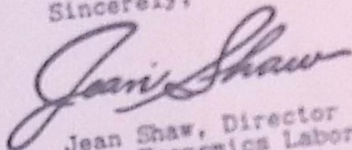
Dear Homemaker:

This booklet has been written for you, to help you use and enjoy fully your KENMORE Automatic Zigzag Sewing Machine.

We urge you to read pp. 2-18 before using your machine. This section explains the operation of the special controls that allow you to do many tedious tasks automatically. The following pages offer suggestions and instructions for specific ornamental and time saving operations. See p. 11 before using the automatic patterns or zigzag stitch.

We feel the KENMORE Automatic Zigzag Sewing Machine is the finest of its kind and we are happy to offer help with any questions you may have regarding the machine.

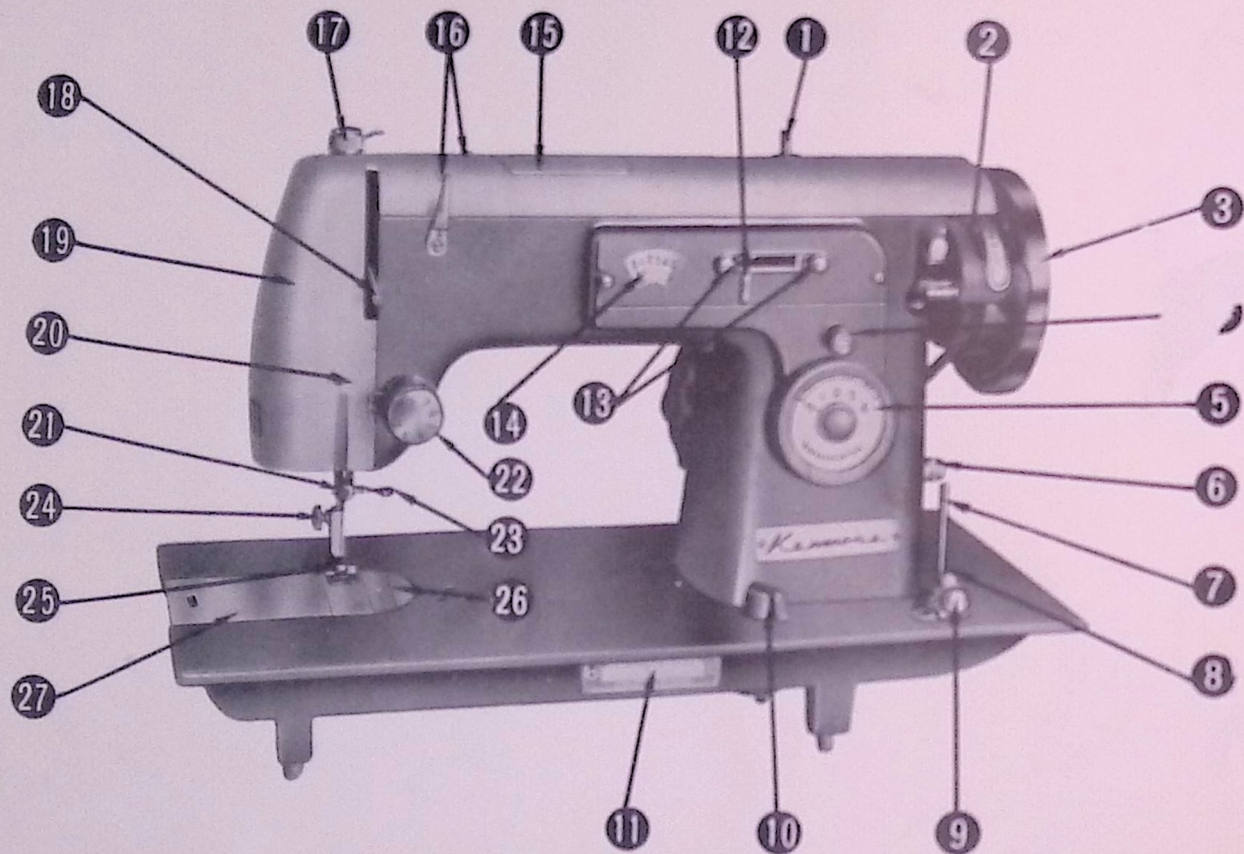
Sincerely,



Jean Shaw, Director
Home Economics Laboratory
Department 817
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Chicago 7, Illinois

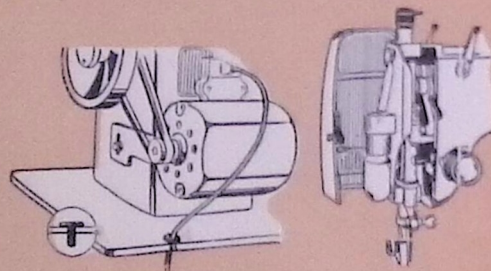
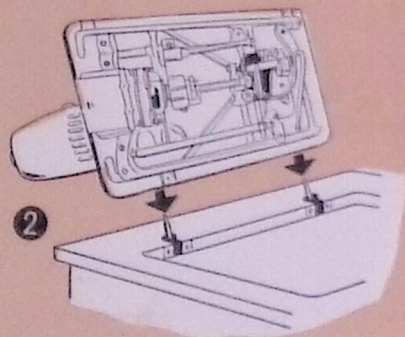
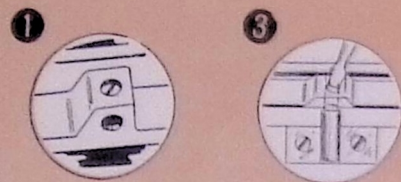
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HEAD PARTS IDENTIFICATION

- | | |
|---|--|
| 1 Thread Spool Pin | 14 Stitch Width Indicator |
| 2 Bobbin Winder Assembly | 15 Cover to Automatic Decorating
Stitch Mechanism |
| 3 Handwheel | 16 Upper Thread Guides |
| 4 Reverse Stitch Push Button | 17 Presser Foot Knob |
| 5 Stitch Length Regulator | 18 Thread Take Up Lever |
| 6 Motor Mounting Bracket and
Screw | 19 Face Cover Plate |
| 7 Thread Spool Pin for Bobbin
Winder | 20 Face Cover Thread Guide |
| 8 Light Switch | 21 Needle Thread Guide |
| 9 Bobbin Winder Tension Disc | 22 Thread Tension Assembly |
| 10 Feed Dog Control | 23 Needle Clamp Screw |
| 11 Nomenclature Plate | 24 Presser Foot Screw |
| 12 Stitch Width Control | 25 Presser Foot |
| 13 Stitch Width Lock Screws | 26 Needle Plate |
| | 27 Hand Hole Cover Plate |



INSTALLING MACHINE HEAD

Loosen the two hinge screws under holes in the rear edge of the machine bed (1).

Raise hinge pins in the cutout (2).

Slip machine head onto the pins and tighten hinge screws securely (3).

Lower machine head to front flap.

SEWING LIGHT

The sewing light is placed inside the face cover plate as shown, and illuminates the sewing area only. It may be turned on or off by turning light switch clockwise.

To change bulb, open the face cover plate by swinging it open, twist old bulb away from you and remove. Then insert new bulb.

CONNECTING MACHINE

Push the plug onto three prong connector over the machine motor.

Plug machine cord into any 110-120V wall outlet. When installed in cabinet, insert grommet with cord in hole in bedplate.

NEEDLE AND THREAD TABLE

THREAD SIZE	NEEDLE SIZE	STRAIGHT STITCH LENGTH	FABRIC
Cotton 80-100 Nylon A Silk A Machine embroidery	0	1-1½	Sheer cottons, silks, and nylons Fine laces
Cotton 60-80 Mercerized 50 Nylon A Silk A Machine embroidery	1	1½-2	Light to medium weight cottons Light to medium weight silks Medium weight nylons Light weight woolens
Cotton 40-60 Mercerized 50 Mercerized heavy duty	2	2-3	Heavy weight cottons Medium to heavy weight woolens Heavy drapery fabrics
Cotton 30-50 Mercerized heavy duty	3	3-4	Heaviest cottons as for men's work clothes Heaviest woolen coating

NEEDLE SIZE

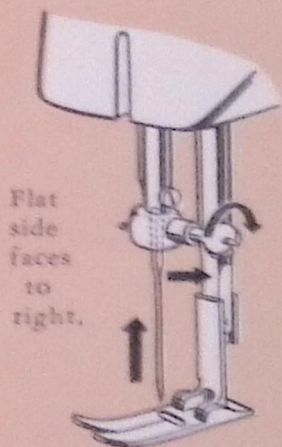
Use Kenma 5021 needles. The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size thread should be used in the bobbin as on the upper part of the machine for ordinary sewing.

Never use a bent needle or one with a blunt point.

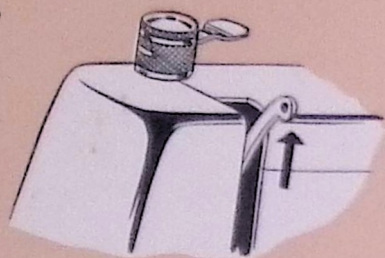
PLACEMENT OF NEEDLE

Raise take-up lever to its highest position by turning hand wheel toward you. Loosen needle clamp screw.

Hold needle so that the flat side is to your right, slip blunt end of needle as far as it will go into needle clamp. Tighten needle into place with clamp screw.

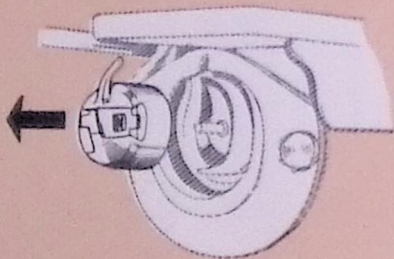


Take up
lever at
its
highest
position.

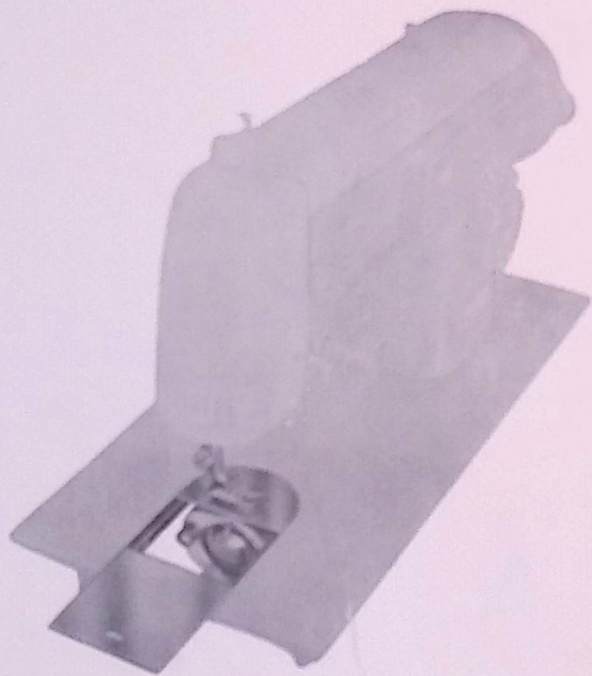


Pull
out
latch.

Pull
bobbin
case
straight
out.



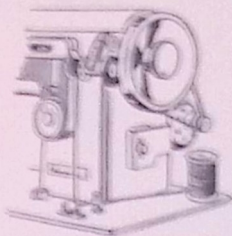
REMOVING BOBBIN CASE FROM SHUTTLE



WINDING THE BOBBIN

1

Place thread on spool post. Draw thread as shown.



2

Wind thread around bobbin a few times, front to back. Guide bobbin onto bobbin winder shaft.



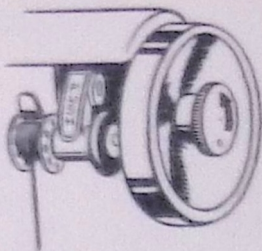
3

Press bobbin winder lever down.



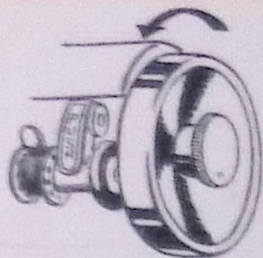
4

Release clutch by turning clutch knob towards you.



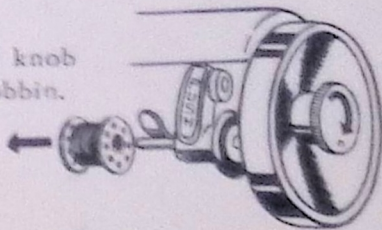
5

Start machine. When bobbin is full, winding mechanism stops automatically.



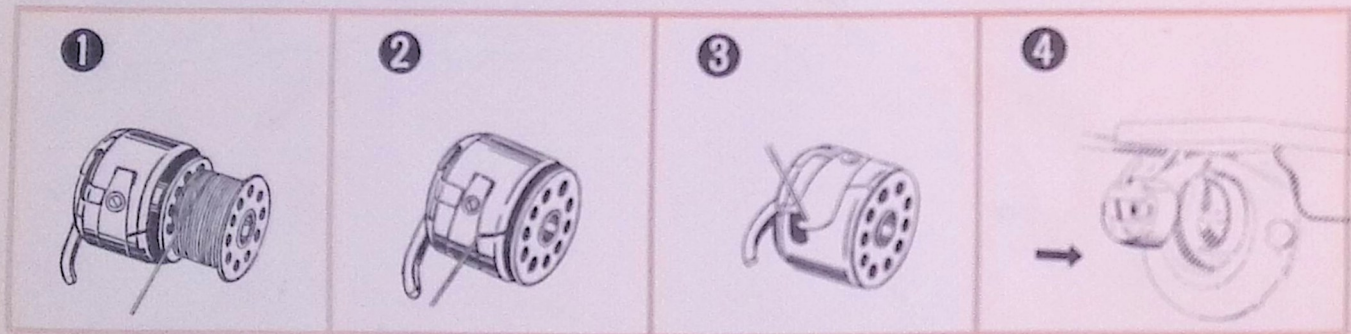
6

Tighten clutch knob and remove bobbin.

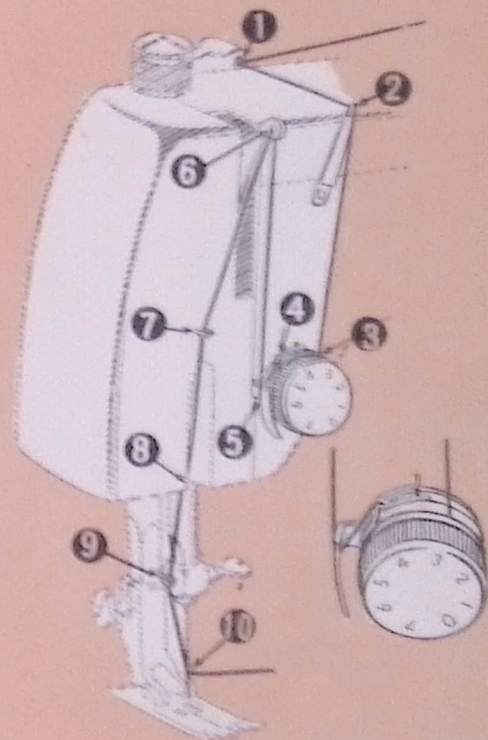
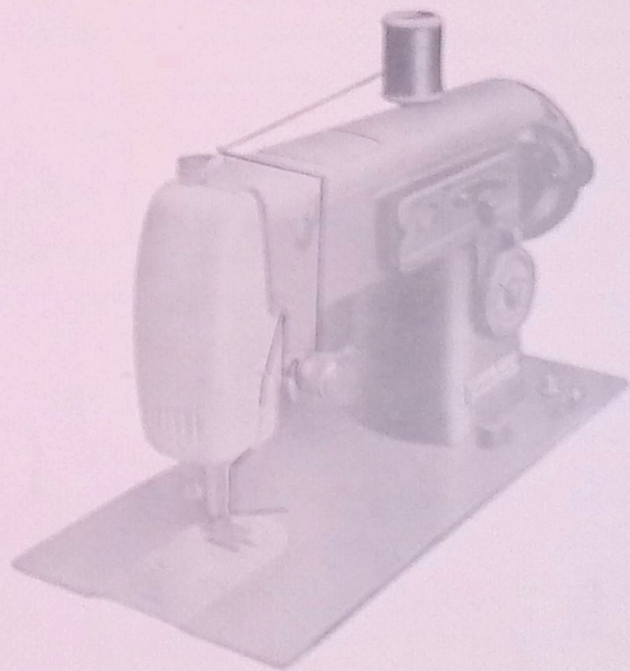


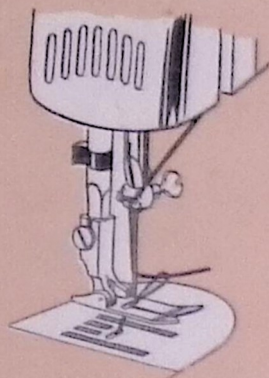
INSERTING BOBBIN INTO BOBBIN CASE ----- CASE INTO SHUTTLE

- 1 Guide bobbin onto center pin of bobbin case, holding latch.
- 2 Pull thread through slot.
- 3 Pull thread under tension spring.
- 4 Position case into shuttle, release latch.



THREADING UPPER MACHINE





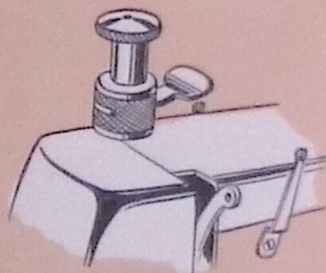
PICKING UP BOBBIN THREAD

Raise presser foot lever.

Hold needle thread loosely in left hand and rotate hand wheel toward you one complete turn.

Bring bobbin thread up by pulling upper thread.
(See illustration).

Place threads back under presser foot.



ADJUSTING THE PRESSURE OF THE PRESSER FOOT

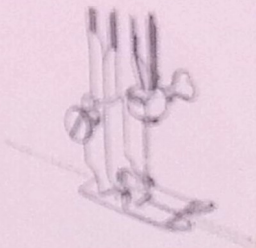
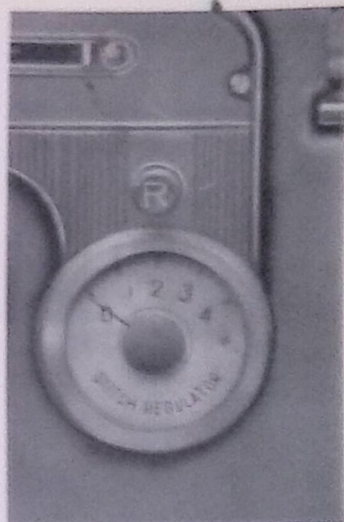
Push down latch of presser foot knob. (See illustration). This will release pressure of presser foot. To increase pressure, push down round top of presser foot knob until suitable pressure is obtained.

SETTING THE STITCH LENGTH

Turn stitch length regulator dial to the desired point between 0 and 4. The 4 setting is the longest stitch. The size of the stitch selected will depend on the fabric sewn. (See chart on Page 5). Recommended stitch lengths are given in numbers.

REVERSE STITCHING

Push button R when reverse stitching is required. Reverse stitching, often called back tacking is used for reinforcing and finishing all seams.



FASTENING A SEAM

Be sure both threads are drawn back under the presser foot. Lower needle into fabric about $\frac{1}{4}$ inch from beginning of seam. Push button R and stitch in reverse until needle reaches beginning of seam. Release button and complete seam.

When you reach the end, push button R and sew back over $\frac{1}{4}$ inch of completed seam.

ADJUSTING TENSIONS

1

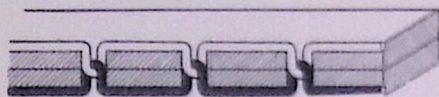


Fig. 1

A perfect stitch will have threads locked between the two layers of fabric with no loops on top or bottom.

PROBLEM

2

Upper thread too tight

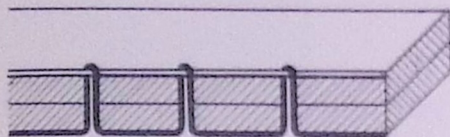
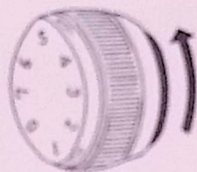


Fig. 2



REMEDY

Decrease Tension



3

Upper thread too loose

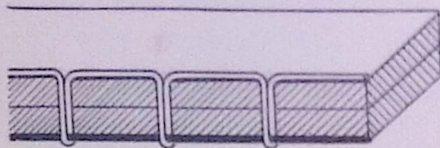


Fig. 3



Increase Tension

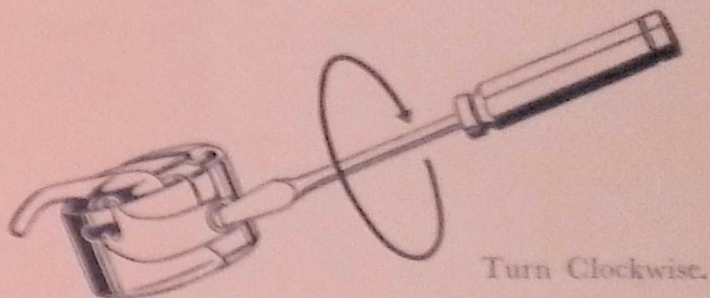


When stitching is unsatisfactory as in figures 2 and 3, adjust the upper thread tension. Lower thread tension is preset and rarely requires adjustment for general sewing.

However, if stitch is satisfactory as in figure 1 and seam is badly puckered, the cause may be tight tensions and both upper and lower may be adjusted.

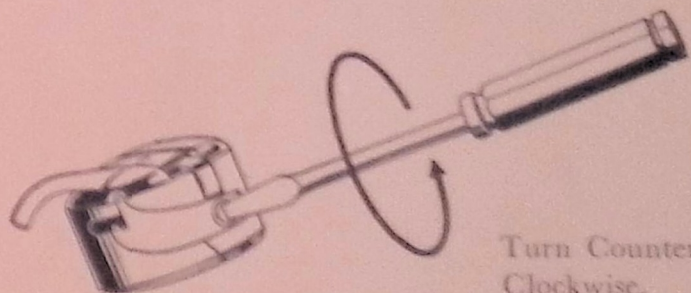
When adjusting the tension on the bobbin case, make slight adjustments with a screwdriver.

INCREASE TENSION



Turn Clockwise.

DECREASE TENSION



Turn Counter
Clockwise.

INSERTING AND REMOVING THE MATERIAL

For all kinds of sewing, consult chart Page 5.

Before placing the material on the machine see that:

- The presser foot and needle clamp screws are both tight
- The sizes of needle and thread suit the kind of work to be done
- The thread take-up lever is at its highest position
- Make sure that the ends of the threads have been drawn about 4 inches to the rear of the machine

Place material underneath the presser foot, insert the needle into the material by turning

the hand wheel toward you, lower presser foot and start sewing.

To remove the work, first turn the hand wheel toward you until the thread take-up lever is at its highest position, then raise the presser foot, remove the material to the rear and cut off excess thread with the thread cutter located on the presser bar.

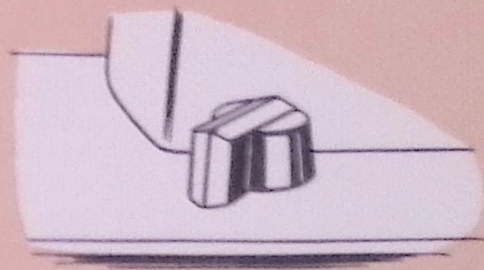
IMPORTANT: Always turn the hand wheel toward you! When the machine is not being used, place a piece of material over the feed dog and lower the presser foot. Never operate the machine when it is threaded, or if the presser foot has been lowered, unless a piece of material is under the presser foot.

TURNING A CORNER

Stop sewing machine and make sure needle is in fabric. Raise presser foot. Turn fabric to desired direction and go on with stitching.

DROP FEED CONTROL

This knob is situated on right front of machine bed. When knob is turned to the LEFT, feed dog does not pull material. This allows the operator freedom of movement of material. For regular sewing, turn knob to the RIGHT.



DARNING

WITH PRESSER FOOT:

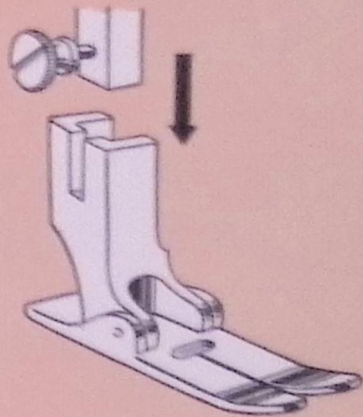
1. Turn feed dog control to LEFT.
2. Press down latch of presser foot knob, see Page 10. With release in this position mending, darning, monogram work, etc. may be done.
3. Stretch fabric tightly between two spring embroidery hoops and place under needle.
4. Lower presser bar so thread will have some tension. When you start to darn, move fabric back and forth to cover darning area. Then turn fabric and continue sewing at right-angles to the previous stitching. Always use medium machine speed. You can make any length stitches desired. Slow movement of fabric will make short darning stitches. Fast movement will make long stitches.
5. When you finish darning, raise presser foot and remove fabric. Increase pressure for general sewing by pressing down round top of presser foot knob.

WITHOUT PRESSR FOOT:

1. Turn feed dog control to LEFT.
2. Remove presser foot.
Proceed as directed under steps 3 and 4 above.
5. When you finish darning, raise the presser bar and remove fabric.
Replace presser foot.

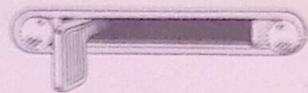
CHANGING THE ATTACHMENT FOOT

The various attachment feet available for certain kinds of work are to be fastened to the presser bar. To attach the feet, raise the presser bar to its highest position by raising the presser foot lever. Loosen the presser foot thumb screw, choose the proper foot, insert from the front. Tighten the screw using the large screw driver and make sure that the foot is secure.



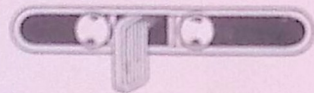
ZIG ZAG CONTROL

SETTING STITCH WIDTH



Move stitch width control to the desired position between 0 and 5 on the stitch width indicator plate. Zigzag stitch width increases from 1 to 4. Straight stitching is possible only with control on 0.

LOCKING STITCH WIDTH

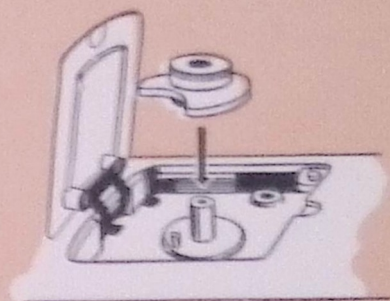


Loosen the stitch width lock screws. Shift lock screw so as to hold the stitch width lever in desired position. Tighten lock screws firmly.

AUTOMATIC DECORATIVE STITCHING

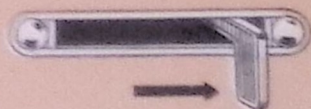
This machine can sew beautiful decorative and embroidery stitches by means of various discs supplied with the machine. The movements of the needle are controlled by the disc.

The stitch length specified is for an average pattern of decorative sewing. When a looser or tighter pattern of stitching is preferred, it is achieved by setting the stitch length to a shorter or longer stitch to suit your preference.



INSERTING THE DISC

1. Push stitch width control lever to the right and keep it there during insertion.
2. Pull Automatic Decorating Stitch Mechanism open. Grasp knob of pattern disc and slip disc onto the shaft. Turn disc slightly until it slips down and the retaining pin enters hole in disc.
3. Release stitch width control lever.

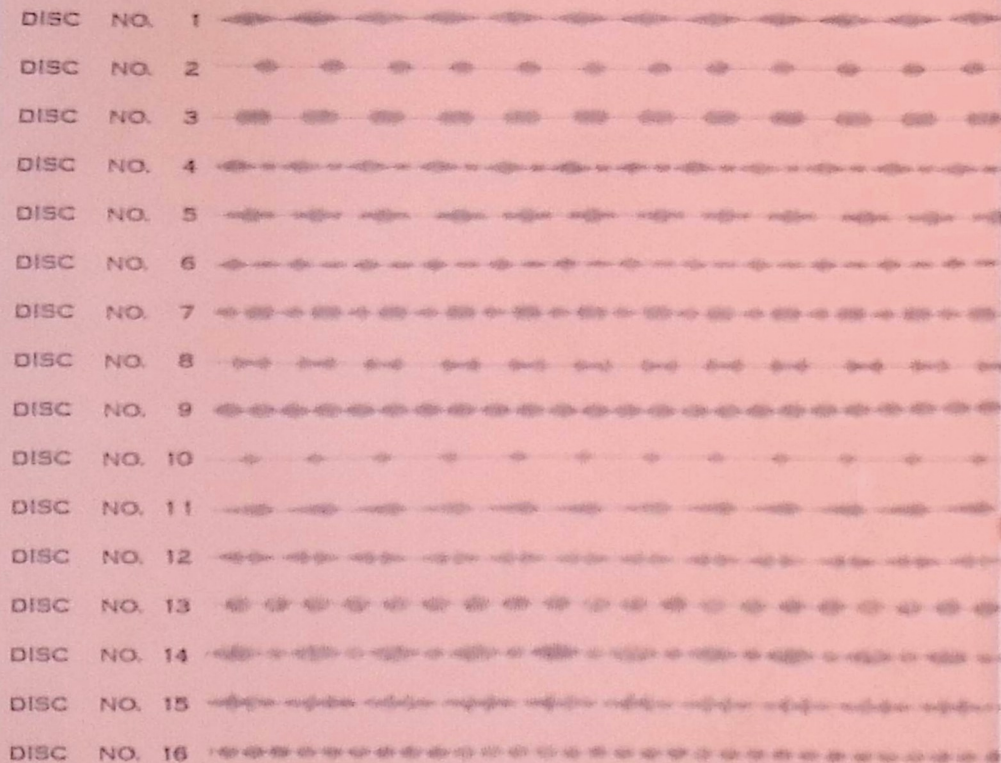


AUTOMATIC DECORATIVE STITCH VARIATIONS

AUTOMATIC DECORATIVE STITCH VARIATIONS

Stitch width 0

Stitch length $\frac{1}{2}$



















AUTOMATIC DECORATIVE STITCH VARIATIONS

AUTOMATIC DECORATIVE STITCH VARIATIONS

Stitch width 0

Stitch length 1

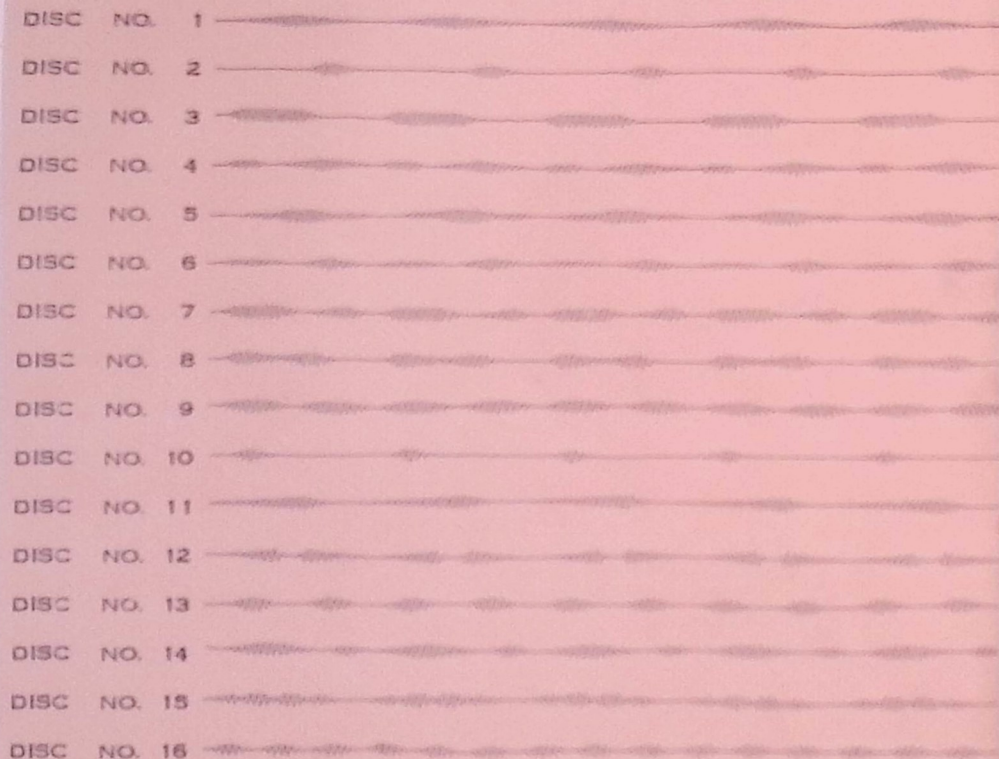
DISC NO.	1	
DISC NO.	2	
DISC NO.	3	
DISC NO.	4	
DISC NO.	5	
DISC NO.	6	
DISC NO.	7	
DISC NO.	8	
DISC NO.	9	
DISC NO.	10	
DISC NO.	11	
DISC NO.	12	
DISC NO.	13	
DISC NO.	14	
DISC NO.	15	
DISC NO.	16	

AUTOMATIC DECORATIVE STITCH VARIATIONS

AUTOMATIC DECORATIVE STITCH VARIATIONS

Stitch width 0

Stitch length $1\frac{1}{2}$



















AUTOMATIC DECORATIVE STITCH VARIATIONS

AUTOMATIC DECORATIVE STITCH VARIATIONS

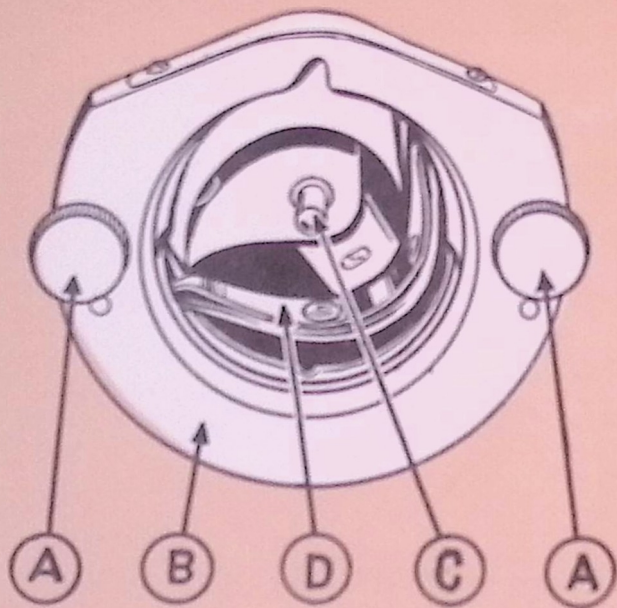
Stitch width 2

Stitch length $\frac{1}{2}$

DISC NO.	1	
DISC NO.	2	
DISC NO.	3	
DISC NO.	4	
DISC NO.	5	
DISC NO.	6	
DISC NO.	7	
DISC NO.	8	
DISC NO.	9	
DISC NO.	10	
DISC NO.	11	
DISC NO.	12	
DISC NO.	13	
DISC NO.	14	
DISC NO.	15	
DISC NO.	16	

REMOVING LINT

1. Turn hand wheel toward you until needle is at its highest position. Remove bobbin and bobbin case.
2. Push buttons (A) sideways.
3. Remove shuttle race cover (B). Then pull out shuttle (C) by grasping axle.
4. Remove accumulated lint and threads from all parts of shuttle race.
5. Replace shuttle in race body, with axle facing out, forming a perfect circle with driver (D).
6. Replace shuttle race cover (B), then insert bobbin and bobbin case.
7. Do not attempt to force any of the above operation.
8. Occasionally remove the needle plate and clean feed dog with a soft brush.

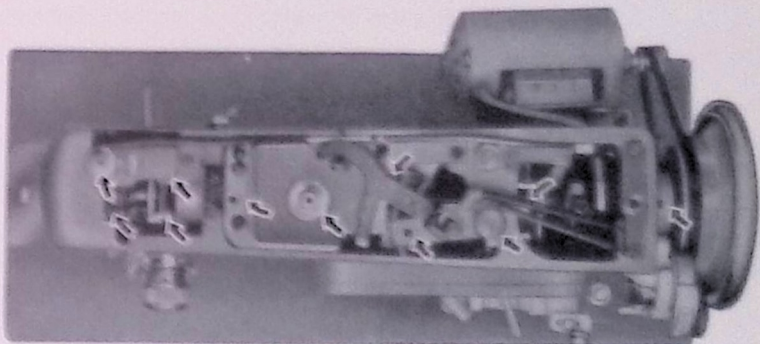


OILING MACHINE

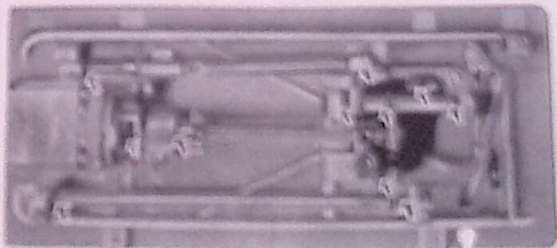
Keep the moving parts free from dust and threads for quiet and efficient operation. Cleaning should be done with a small brush; never with a sharp or pointed tool.

When machine runs hard or makes excessive noise, place a drop of KEN-MORE sewing machine oil at the points indicated.

Tilt machine head back to oil points indicated on under side of machine head.



Remove arm cover plate to oil points indicated at top of machine head. It can be taken off very easily with both hands.



WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Irregular Stitches	<p>Incorrect size needle.</p> <p>Improper threading.</p> <p>Loose upper thread tension.</p> <p>Pulling fabric.</p> <p>Light pressure on presser foot.</p> <p>Loose presser foot.</p> <p>Unevenly wound bobbin.</p>	<p>Choose correct size needle for thread and fabric (page 5).</p> <p>Rethread machine (Page 9).</p> <p>Tighten upper thread tension (page 12).</p> <p>Do not pull fabric; guide it gently.</p> <p>Increase pressure on presser foot (page 10).</p> <p>Reset presser foot (page 17).</p> <p>Rewind bobbin (page 7).</p>
Breaking Needles	<p>Pulling fabric.</p> <p>Incorrect size needle.</p> <p>Incorrect setting of needle.</p> <p>Loose presser foot.</p>	<p>Do not pull fabric; guide it gently.</p> <p>Choose correct size needle for thread and fabric (page 5).</p> <p>Reset needle (page 5).</p> <p>Reset presser foot (page 17).</p>
Bunching of Thread	<p>Upper and lower threads not drawn back under presser foot.</p> <p>Feed dog down.</p>	<p>Draw both threads back under presser foot (page 10).</p> <p>Raise feed dog.</p>
Puckering	<p>Incorrect thread tension(s).</p> <p>Light pressure on presser foot.</p> <p>Using two different sizes or kinds of thread.</p> <p>Bent or blunt needle.</p> <p>Loose presser foot.</p> <p>Fabric too sheer or too soft.</p>	<p>Reset thread tension(s) (page 12, 13).</p> <p>Increase pressure on presser foot (page 10).</p> <p>Upper thread and bobbin thread should be same size and kind.</p> <p>Insert new needle (page 5).</p> <p>Reset presser foot (page 17).</p> <p>Use underlay of tissue paper or tulle when stitching.</p>

WHAT TO DO

PROBLEM	PROBABLE CAUSE	CORRECTION
Skipping Stitches	<p>Incorrect size needle.</p> <p>Bent or blunt needle.</p> <p>Incorrect setting of needle.</p> <p>Tight upper thread tension.</p> <p>Light pressure on presser foot.</p>	<p>Choose correct size needle for thread and fabric (page 5).</p> <p>Insert new needle (page 5).</p> <p>Reset needle (page 5).</p> <p>Loosen upper thread tension (page 12).</p> <p>Increase pressure on presser foot (page 10).</p>
Breaking Upper Thread	<p>Starting with take-up lever in low position.</p> <p>Starting to stitch too fast.</p> <p>Improper threading.</p> <p>Tight upper thread tension.</p> <p>Incorrect size needle.</p> <p>Sharp eye in needle.</p>	<p>Take-up lever must be in highest position when starting to sew.</p> <p>Start to stitch at a medium speed.</p> <p>Rethread machine (page 9).</p> <p>Loosen upper thread tension (page 12).</p> <p>Choose correct size needle for thread and fabric (page 5).</p> <p>Insert new needle (page 5).</p>
Breaking Bobbin Thread	<p>Improper bobbin case threading.</p> <p>Tight bobbin thread tension.</p> <p>Lint in bobbin case or shuttle.</p>	<p>Check bobbin case threading (page 8).</p> <p>Loosen bobbin thread tension page 13).</p> <p>Clean bobbin case and shuttle (page 24).</p>
It is not Moving	<p>Feed dog down.</p> <p>Light pressure on presser foot.</p> <p>Threads knotted under fabric.</p>	<p>Raise feed dog.</p> <p>Increase pressure on presser foot (page 10).</p> <p>Place both threads back under presser foot before beginning to stitch.</p>
Machine Jamming	<p>Thread caught in shuttle.</p>	<p>Disassemble and clean shuttle (page 24).</p>



WHEN YOU SELECT

KENMORE

A great name in sewing machines you are assured a complete
and continuing service no matter when you may need it
with

GENUINE SEARS PARTS
FACTORY APPROVED METHODS
EXPERTLY TRAINED MEN

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OR MAIL ORDER HOUSE

Please be sure to mention the number shown on
your nomenclature plate. See page 2.

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